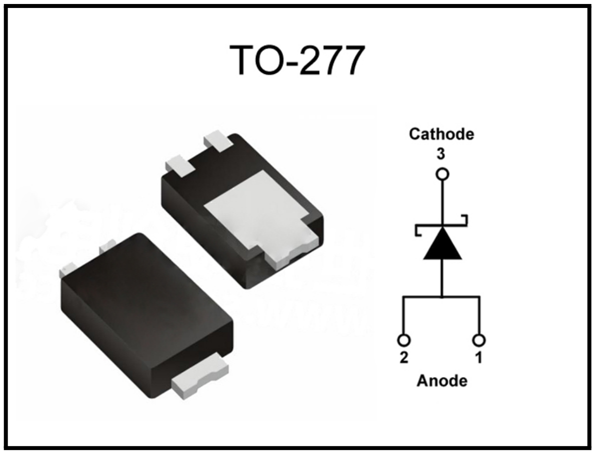
BP15L50SP

Schottky Barrier Diode

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

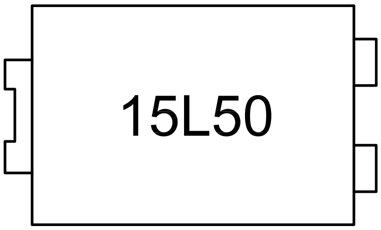
Package



Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: TO-277 Plastic Package

Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BP15L50SP	TO-277	15L50	5K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limit	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	–	50	V
$I_{F(AV)}$	Maximum Average Forward Rectified Current	–	15	A
I_{FSM}	Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	–	280	A
T_J,T_{STG}	Operating Junction and Storage Temperature Range	–	-40 to +150	°C
$R_{\theta JA}$	Typical Thermal Resistance per diode (Mounted on FR-4 PCB)	–	72	°C/W

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Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limit		Unit
			Typ.	Max.	
V_F	Instantaneous Forward Voltage Per Diode	I_F=5A,T_J=25°C	0.40	–	V
		I_F=15A,T_J=25°C	0.48	0.52	
		I_F=5A,T_J=125°C	0.29	–	
		I_F=15A,T_J=125°C	0.39	–	
I_R	Intantaneous Reverse Current Per Diode at Rated Reverse Voltage	T_J=25°C	20	60	uA
		T_J=125°C	–	30	mA

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Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Forward Voltage Characteristics

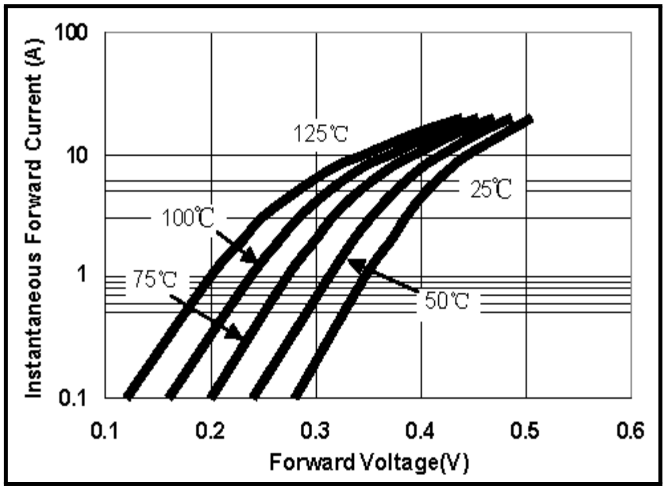


Figure 2: Reverse Leakage Characteristics

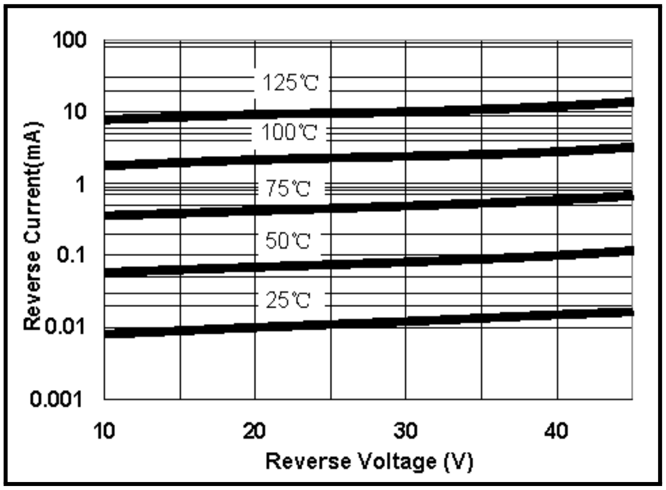


Figure 3: Junction Capacitance Characteristics

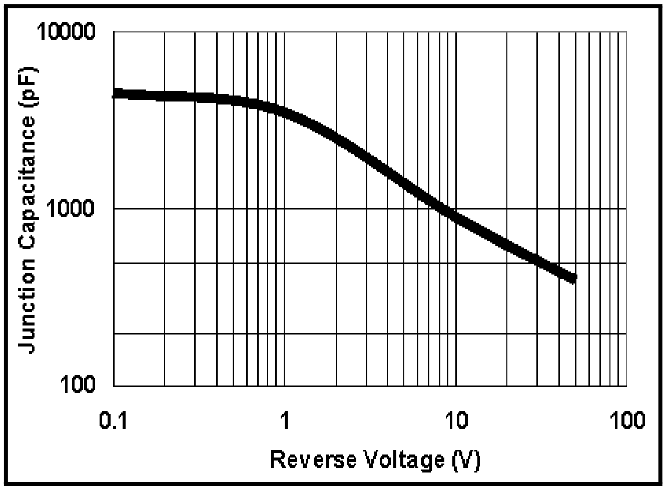
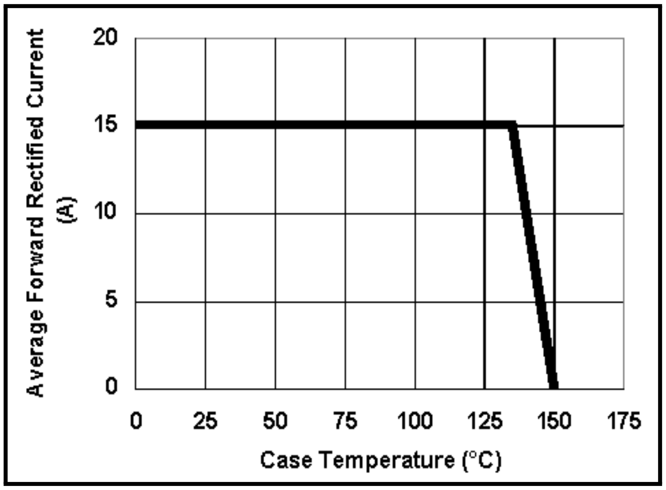


Figure 4: Forward Current Derating Curve



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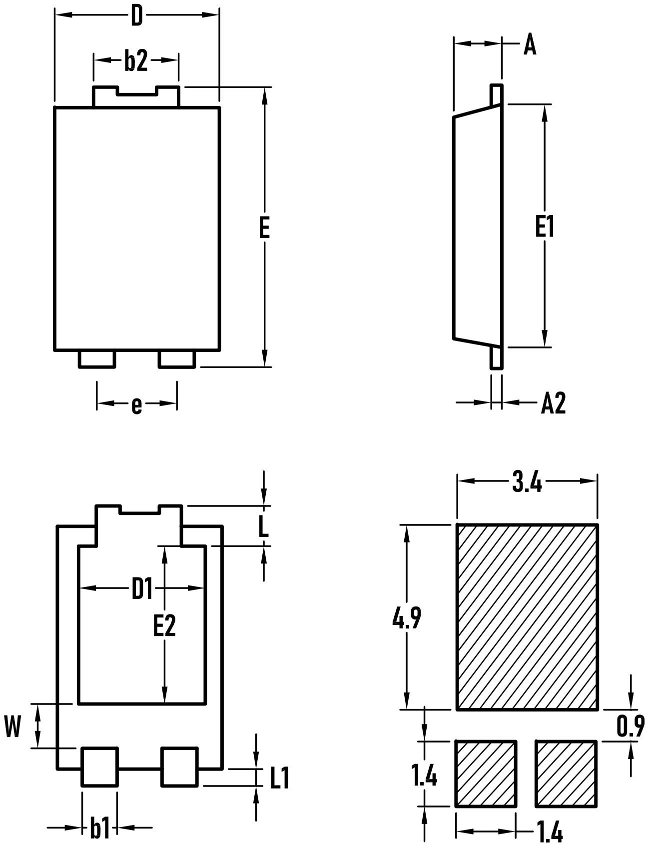
Outline Drawing - TO-277



SYMBOL	MILLIMETER	
	MIN.	MAX.
A	1.1	1.3
A2	0.3	0.4
b1	0.8	1
b2	1.7	1.9
D	3.9	4.1
D1	3.054	
E	6.4	6.6
e	1.84	
E1	5.3	5.5
E2	3.549	
L	0.8	1
L1	0.5	0.7
W	1.1	1.4